BioMap and Living Waters

Guiding Land Conservation for Biodiversity in Massachusetts

Core Habitats of Dalton

This report and associated map provide information about important sites for biodiversity conservation in your area.

This information is intended for conservation planning, and is not intended for use in state regulations.

Produced by:

Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries and Wildlife
Executive Office of Environmental Affairs
Commonwealth of Massachusetts

Produced in 2004

BioMap and Living Waters:
Guiding Land Conservation for Biodiversity in Massachusetts

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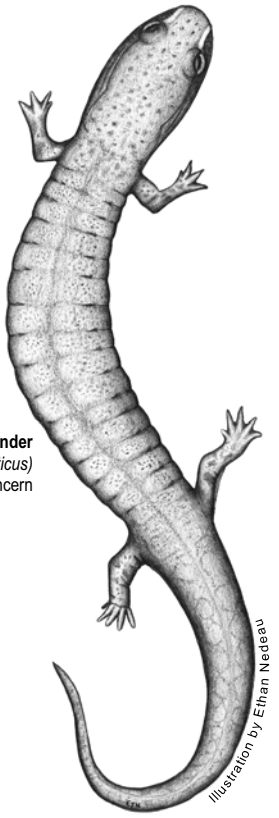
* Depending on the location of Core Habitats, your city or town may not have all of these sections.



Spring Salamander
(Gyrinophilus porphyriticus)
Species of Special Concern

Funding for this project was made available by the Executive Office of Environmental Affairs, contributions to the Natural Heritage & Endangered Species Fund, and through the State Wildlife Grants Program of the US Fish & Wildlife Service.

Natural Heritage & Endangered Species Program

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For more information on rare species and natural communities, please see our fact sheets online at ***www.nhesp.org***

BioMap and Living Waters:
Guiding Land Conservation for Biodiversity in Massachusetts

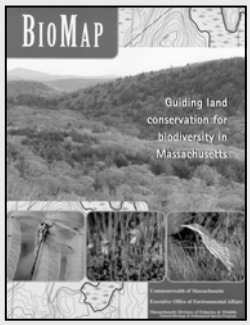
Introduction

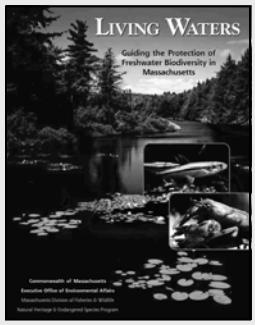
In this report, the Natural Heritage & Endangered Species Program provides you with site-specific biodiversity information for your area. Protecting our biodiversity today will help ensure the full variety of species and natural communities that comprise our native flora and fauna will persist for generatons to come.

The information in this report is the result of two statewide biodiversity conservation planning projects, ***BioMap*** and ***Living Waters***. The goal of the BioMap project, completed in 2001, was to identify and delineate the most important areas for the long-term viability of terrestrial, wetland, and estuarine elements of biodiversity in Massachusetts. The goal of the Living Waters project, completed in 2003, was to identify and delineate the rivers, streams, lakes, and ponds that are important for freshwater biodiversity in the Commonwealth. These two conservation plans are based on documented observations of rare species, natural communities, and exemplary habitats.

What is a Core Habitat?

Both BioMap and Living Waters delineate ***Core Habitats*** that identify the most critical sites for biodiversity conservation across the state. Core Habitats represent habitat for the state's most viable rare plant and animal populations and include exemplary natural communities and aquatic habitats. Core Habitats represent a wide diversity of rare species and natural communities (see Table 1), and these areas are also thought to contain virtually all of the other described species in Massachusetts. Statewide, BioMap Core Habitats encompass 1,380,000 acres of uplands and wetlands, and Living Waters identifies 429 Core Habitats in rivers, streams, lakes, and ponds.





Get your copy of the ***BioMap*** and ***Living Waters*** reports! Contact Natural Heritage at 508-792-7270, Ext. 200 or email natural.heritage@state.ma.us. Posters and detailed technical reports are also available.

Core Habitats and Land Conservation

One of the most effective ways to protect biodiversity for future generations is to protect Core Habitats from adverse human impacts through land conservation. For Living Waters Core Habitats, protection efforts should focus on the ***riparian areas***, the areas of land adjacent to water bodies. A naturally vegetated buffer that extends 330 feet (100 meters) from the water's edge helps to maintain cooler water temperature and to maintain the nutrients, energy, and natural flow of water needed by freshwater species.

In Support of Core Habitats

To further ensure the protection of Core Habitats and Massachusetts' biodiversity in the long-term, the BioMap and Living Waters projects identify two additional areas that help support Core Habitats.

In BioMap, areas shown as ***Supporting Natural Landscape*** provide buffers around the Core Habitats, connectivity between Core Habitats, sufficient space for ecosystems to function, and contiguous undeveloped habitat for common species. Supporting Natural Landscape was

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generated using a Geographic Information Systems (GIS) model, and its exact boundaries are less important than the general areas that it identifies. Supporting Natural Landscape represents potential land protection priorities once Core Habitat protection has been addressed.

In Living Waters, ***Critical Supporting Watersheds*** highlight the immediate portion of the watershed that sustains, or possibly degrades, each freshwater Core Habitat. These areas were also identified using a GIS model. Critical Supporting Watersheds represent developed and undeveloped lands, and can be quite large. Critical Supporting Watersheds can be helpful in land-use planning, and while they are not shown on these maps, they can be viewed in the Living Waters report or downloaded from www.mass.gov/mgis.

Understanding Core Habitat Species, Community, and Habitat Lists

What's in the List?

Included in this report is a list of the species, natural communities, and/or aquatic habitats for each Core Habitat in your city or town. The lists are organized by Core Habitat number.

For the larger Core Habitats that span more than one town, the species and community lists refer to the entire Core Habitat, not just the portion that falls within your city or town. For a list of all the state-listed rare species within your city or town's boundary, whether or not they are in Core Habitat, please see the town rare species lists available at www.nhesp.org.

The list of species and communities within a Core Habitat contains only the species and natural communities that were explicitly included in a given BioMap or Living Waters Core Habitat. Other rare species or examples of other natural communities may fall within the Core Habitat, but for various reasons are not included in the list. For instance, there are a few rare species that are omitted from the list or summary because of their particular sensitivity to the threat of collection. Likewise, the content of many very small Core Habitats are not described in this report or list, often because they contain a single location of a rare plant

Table 1. The number of rare species and types of natural communities explicitly included in the BioMap and Living Waters conservation plans, relative to the total number of native species statewide.

BioMap

	Species and Verified Natural Community Types	
Biodiversity Group	**Included in BioMap**	**Total Statewide**
Vascular Plants	246	1,538
Birds	21	221 breeding species
Reptiles	11	25
Amphibians	6	21
Mammals	4	85
Moths and Butterflies	52	An estimated 2,500 to 3,000
Damselflies and Dragonflies	25	An estimated 165
Beetles	10	An estimated 2,500 to 4,000
Natural Communities	92	> 105 community types

Living Waters

	Species	
Biodiversity Group	**Included in Living Waters**	**Total Statewide**
Aquatic Vascular Plants	23	114
Fishes	11	57
Mussels	7	12
Aquatic Invertebrates	23	An estimated > 2500

species. Some Core Habitats were created for suites of common species, such as forest birds, which are particularly threatened by habitat fragmentation. In these cases, the individual common species are not listed.

What does 'Status' mean?

The Division of Fisheries and Wildlife determines a status category for each rare species listed under the Massachusetts Endangered Species Act, M.G.L. c.131A, and its implementing regulations, 321 CMR 10.00. Rare species are categorized as Endangered, Threatened, or of Special Concern according to the following:

- ***Endangered*** species are in danger of extinction throughout all or a significant portion of their range or are in danger of extirpation from Massachusetts.
- ***Threatened*** species are likely to become Endangered in Massachusetts in the foreseeable future throughout all or a significant portion of their range.
- ***Special Concern*** species have suffered a decline that could threaten the species if allowed to continue unchecked or occur in such small numbers or with such restricted distribution or specialized habitat requirements that they could easily become Threatened in Massachusetts.

In addition, the Natural Heritage & Endangered Species Program maintains an unofficial ***watch list*** of plants that are tracked due to potential conservation interest or concern, but are not regulated under the Massachusetts Endangered Species Act or other laws or regulations. Likewise, described natural communities are not regulated any laws or regulations, but they can help to identify ecologically important areas that are worthy of protection. The status of natural communities reflects the documented number and acreages of each community type in the state:

- ***Critically Imperiled*** communities typically have 5 or fewer documented sites or have very few remaining acres in the state.
- ***Imperiled*** communities typically have 6-20 sites or few remaining acres in the state.
- ***Vulnerable*** communities typically have 21-100 sites or limited acreage across the state.
- ***Secure*** communities typically have over 100 sites or abundant acreage across the state; however excellent examples are identified as Core Habitat to ensure continued protection.

Legal Protection of Biodiversity

BioMap and Living Waters present a powerful vision of what Massachusetts would look like with full protection of the land that supports most of our biodiversity. To create this vision, some populations of state-listed rare species were deemed more likely to survive over the long-term than others.

Regardless of their potential viability, all sites of state-listed species have full legal protection under the Massachusetts Endangered Species Act (M.G.L. c.131A) and its implementing regulations (321 CMR 10.00). Habitat of state-listed wildlife is also protected under the Wetlands Protection Act Regulations (310 CMR 10.37 and 10.59). The ***Massachusetts Natural Heritage Atlas*** shows **Priority Habitats**, which are used for regulation under the Massachusetts Endangered Species Act and Massachusetts Environmental Policy Act (M.G.L. c.30) and **Estimated Habitats**, which are used for regulation of rare wildlife habitat under the Wetlands Protection Act. For more information on rare species regulations, see the *Massachusetts Natural Heritage Atlas*, available from the Natural Heritage & Endangered Species Program in book and CD formats.

BioMap and Living Waters are conservation planning tools and do not, in any way, supplant the Estimated and Priority Habitat Maps which have regulatory significance. Unless and until the combined BioMap and Living Waters vision is fully realized, we must continue to protect all populations of our state-listed species and their habitats through environmental regulation.

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Understanding Core Habitat Summaries

Following the BioMap and Living Waters Core Habitat species and community lists, there is a descriptive summary of each Core Habitat that occurs in your city or town. This summary highlights some of the outstanding characteristics of each Core Habitat, and will help you learn more about your city or town's biodiversity. You can find out more information about many of these species and natural communities by looking at specific ***fact sheets*** at www.nhesp.org.

Next Steps

BioMap and Living Waters were created in part to help cities and towns prioritize their land protection efforts. While there are many reasons to conserve land – drinking water protection, recreation, agriculture, aesthetics, and others – BioMap and Living Waters Core Habitats are especially helpful to municipalities seeking to protect the rare species, natural communities, and overall biodiversity within their boundaries. Please use this report and map along with the rare species and community fact sheets to appreciate and understand the biological treasures in your city or town.

Protecting Larger Core Habitats

Core Habitats vary considerably in size. For example, the average BioMap Core Habitat is 800 acres, but Core Habitats can range from less than 10 acres to greater than 100,000 acres. These larger areas reflect the amount of land needed by some animal species for breeding, feeding, nesting, overwintering, and long-term survival. Protecting areas of this size can be very challenging, and requires developing partnerships with neighboring towns.

Prioritizing the protection of certain areas within larger Core Habitats can be accomplished through further consultation with Natural Heritage Program biologists, and through additional field research to identify the most important areas of the Core Habitat.

Additional Information

If you have any questions about this report, or if you need help protecting land for biodiversity in your community, the Natural Heritage & Endangered Species Program staff looks forward to working with you.

Contact the Natural Heritage & Endangered Species Program:

by Phone *508-792-7270, Ext. 200*

by Fax: *508-792-7821*

by Email: *natural.heritage@state.ma.us*.

by Mail: *North Drive*
Westborough, MA 01581

The GIS datalayers of BioMap and Living Waters Core Habitats are available for download from MassGIS: www.mass.gov/mgis

Check out www.nhesp.org for information on:

- Rare species in your town
- Rare species fact sheets
- BioMap and Living Waters projects
- Natural Heritage publications, including:
  - Field guides
  - Natural Heritage Atlas, and more!

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BioMap: Species and Natural Communities

Dalton

Core Habitat BM502

Natural Communities

Common Name	Scientific Name	Status
Rich, Mesic Forest Community		Vulnerable

Plants

Common Name	Scientific Name	Status
Great Laurel	*Rhododendron maximum*	Threatened

Invertebrates

Common Name	Scientific Name	Status
Eastern Veined White	*Pieris oleracea*	Threatened

Vertebrates

Common Name	Scientific Name	Status
Spring Salamander	*Gyrinophilus porphyriticus*	Special Concern

Core Habitat BM521

Vertebrates

Common Name	Scientific Name	Status
Spring Salamander	*Gyrinophilus porphyriticus*	Special Concern

Core Habitat BM551

Plants

Common Name	Scientific Name	Status
Large-Leaved Sandwort	*Moehringia macrophylla*	Endangered

Vertebrates

Common Name	Scientific Name	Status
Spring Salamander	*Gyrinophilus porphyriticus*	Special Concern

BioMap: Species and Natural Communities

Dalton

Core Habitat BM600

Invertebrates

Common Name	Scientific Name	Status
Eastern Veined White	*Pieris oleracea*	Threatened

Core Habitat BM631

Natural Communities

Common Name	Scientific Name	Status
Sensitive Natural Community		

Plants

Common Name	Scientific Name	Status
Crooked-Stem Aster	*Symphotrichum prenanthoides*	Threatened

Core Habitat BM639

Natural Communities

Common Name	Scientific Name	Status
Rich, Mesic Forest Community		Vulnerable

Core Habitat BM677

Natural Communities

Common Name	Scientific Name	Status
Black Ash-Red Maple-Tamarack Calcareous Seepage Swamp		Imperiled
Calcareous Sloping Fen		Imperiled
Red Oak - Sugar Maple Transition Forest		Secure
Rich, Mesic Forest Community		Vulnerable

Plants

Common Name	Scientific Name	Status
Adder's-Tongue Fern	*Ophioglossum pusillum*	Threatened

BioMap: Species and Natural Communities

Dalton

Bristly Buttercup	*Ranunculus pensylvanicus*	Threatened
Bush's Sedge	*Carex bushii*	Endangered
Capillary Beak-Sedge	*Rhynchospora capillacea*	Endangered
Chestnut-Colored Sedge	*Carex castanea*	Endangered
Crooked-Stem Aster	*Symphotrichum prenanthoides*	Threatened
Dioecious Sedge	*Carex sterilis*	Threatened
Fen Sedge	*Carex tetanica*	Special Concern
Foxtail Sedge	*Carex alopecoidea*	Threatened
Gray's Sedge	*Carex grayi*	Threatened
Hairy Wild Rye	*Elymus villosus*	Endangered
Handsome Sedge	*Carex formosa*	Threatened
Hemlock Parsley	*Conioselinum chinense*	Special Concern
Intermediate Spike-Sedge	*Eleocharis intermedia*	Threatened
Mossy-Cup Oak	*Quercus macrocarpa*	Special Concern
Northern Bedstraw	*Galium boreale*	Endangered
Pale Green Orchis	*Platanthera flava var herbiola*	Threatened
Pink Pyrola	*Pyrola asarifolia var purpurea*	Endangered
Sensitive Rare Plant		
Smooth Rock-Cress	*Arabis laevigata*	Threatened
Stiff Gentian	*Gentianella quinquefolia*	Watch Listed
Wapato	*Sagittaria cuneata*	Threatened
White Adder's-Mouth	*Malaxis monophyllos var brachypoda*	Endangered

Invertebrates

Common Name	Scientific Name	Status
Early Hairstreak	*Erora laeta*	Threatened
Eastern Veined White	*Pieris oleracea*	Threatened

BioMap: Species and Natural Communities

Dalton

Vertebrates

Common Name	Scientific Name	Status
American Bittern	*Botaurus lentiginosus*	Endangered
Common Moorhen	*Gallinula chloropus*	Special Concern
Four-toed Salamander	*Hemidactylium scutatum*	Special Concern
Jefferson Salamander	*Ambystoma jeffersonianum*	Special Concern
Least Bittern	*Ixobrychus exilis*	Endangered
Marbled Salamander	*Ambystoma opacum*	Threatened
Spring Salamander	*Gyrinophilus porphyriticus*	Special Concern
Wood Turtle	*Clemmys insculpta*	Special Concern

BioMap: Core Habitat Summaries

Dalton

Core Habitat BM502

On the slopes of North and Weston Mountains, this Core Habitat encompasses many miles of coldwater streams that support Spring Salamanders. It also includes a large area of Northern Hardwoods forest that is home to the Eastern Veined White butterfly, and a small but diverse area of Rich, Mesic Woods.

Natural Communities

This large Core Habitat contains 35 acres of Rich, Mesic Forest in Dalton. Rich, Mesic Forests are a variant of northern hardwood forests dominated by Sugar Maple with a diverse herbaceous layer and many spring ephemerals, unusual plants that appear only in spring, in a moist, nutrient-rich environment. These woods have high species diversity, including Sugar Maple, Basswood, Leatherwood, Elderberry, Maidenhair Fern, Blue Cohosh, and Wild Leek, among others. Unfortunately the rich nutrient conditions also make the sites attractive to many exotic invasive plant species.

Plants

A small population of the showy Great Laurel (Threatened) is growing within this Core Habitat.

Invertebrates

The southwestern portion of this Core Habitat (in western Dalton, southeastern Lanesborough, and northeastern Pittsfield) includes a tract of undeveloped and unfragmented Northern Hardwoods forest with sunny openings that is inhabited by the rare Eastern Veined White butterfly. This Core Habitat is located less than 10 km from Core Habitats in Windsor and Pittsfield, which probably allows for the dispersal of Eastern Veined Whites between these areas. While some of this Core Habitat is on protected land, including the Appalachian Trail corridor and the Chalet Wildlife Management Area, much of it appears to be unprotected.

Vertebrates

This is an elongate, multi-lobed Core Habitat along the slopes of North Mountain. It contains over 16 miles of coldwater, high-gradient brooks and headwater seeps that support populations of Spring Salamanders. The majority of this Core Habitat is protected within the boundaries of the Chalet Wildlife Management Area.

Core Habitat BM521

Vertebrates

This Core Habitat protects high-gradient brook habitat and adjacent upland forests along the upper reaches of Collins Brook on the slopes of North Mountain. This area contains significant habitat for Spring Salamanders and is almost entirely protected as conservation land within the Chalet Wildlife Management Area.

BioMap: Core Habitat Summaries

Dalton

Core Habitat BM551

Here the cold, high-gradient brooks on the western slopes of North Mountain provide habitat for Spring Salamanders. This Core Habitat also contains serpentine rock outcrops needed to support the Endangered Large-Leaved Sandwort. The eastern portion of this Core Habitat is protected as conservation land, but the western portion at lower elevations is currently unprotected.

Plants

Large-Leaved Sandwort is an Endangered plant limited in its distribution by its preference for serpentine rock, an uncommon type of rock outcropping, which is found within this Core Habitat.

Vertebrates

This Core Habitat encompasses cold, high-gradient brook habitat for Spring Salamanders, as well as adjacent mixed forest habitat, along over 2 miles of the upper reaches of Gore Brook flowing off the western slope of North Mountain.

Core Habitat BM600

Invertebrates

This Core Habitat includes a tract of undeveloped and relatively unfragmented Northern Hardwoods forest with sunny openings that is inhabited by the rare Eastern Veined White butterfly. This Core Habitat is located less than 10 km from other similar Core Habitats in Windsor and Dalton, which probably allows for dispersal of Eastern Veined Whites between all of these habitat areas. Other than a small area of land within the Wahconah State Park, almost all of this large Core Habitat appears to be unprotected.

Core Habitat BM631

Natural Communities

This Core Habitat in Dalton contains excellent forest habitats for a diversity of Massachusetts' plants and animals.

Plants

The Crooked-Stem Aster occurs in several scattered populations within open areas of this forest habitat.

BioMap: Core Habitat Summaries

Dalton

Core Habitat BM639

Natural Communities

This Core Habitat contains a small part of one of the largest examples of a Rich, Mesic Forest community in the state. Rich, Mesic Forests are a variant of northern hardwood forests dominated by Sugar Maple with a diverse herbaceous layer and many spring ephemerals, unusual plants that appear only in spring, in a moist, nutrient-rich environment. This excellent Rich, Mesic Forest has incredible species diversity and is well-buffered by 1,300 acres of natural vegetation.

Core Habitat BM677

This Core Habitat includes portions of the Housatonic River, Sackett Brook, Yokun Brook, Pleasant Valley and Lenox Mountain. From riparian habitats and calcareous wetlands to large areas of Northern Hardwoods, the diversity of this Core Habitat supports rare species of salamanders, turtles, marsh birds, and butterflies. The calcareous bedrock here supports many high-quality natural communities that contain a wealth of biodiversity, most notably several important rare plant populations. Large portions of this Core Habitat are protected as conservation land and additional protection priorities include areas along the Housatonic River, the lower and middle reaches of Yokun Brook, and around Mud Pond.

Natural Communities

This Core Habitat contains a good diversity of exemplary natural communities that are associated with the porous calcareous bedrock commonly found in this area of the Berkshires. An excellent Calcareous Sloping Fen occurs near Mud Pond. Calcareous Sloping Fens are open, sedge-dominated wetlands occurring on slight to moderate slopes where there is calcareous groundwater seepage. They are rare species "hot spots" with many associated rare plant and animal species. Two good-quality Black Ash-Red Maple-Tamarack Calcareous Seepage Swamps occur in basins below Mahanna Cobble. Black Ash-Red Maple-Tamarack Calcareous Seepage Swamps are mixed deciduous-coniferous forested swamps occurring in areas where there is calcium-rich groundwater seepage. This nutrient enrichment results in many rare calcium-loving plant species.

Plants

A tremendous diversity of rare plant species that are adapted to calcareous fens, swamps, meadows and forests live within this large Core Habitat. For example, a vigorous population of Fen Sedge and one of the state's two known populations of the Capillary Beaked-Sedge inhabit open calcareous peatlands in this area. The state's most outstanding population of Wapato, a rare relative of the Common Arrowhead, makes its home here in a floodplain community. Wet meadow species such as Stiff Gentian and Pale Green Orchis are also present in this Core Habitat.

BioMap: Core Habitat Summaries

Dalton

Invertebrates

This Core Habitat includes undeveloped and unfragmented areas of Northern Hardwoods Forest in northwestern Lenox and southeastern Pittsfield that are habitat for rare butterflies including the Early Hairstreak and the Eastern Veined White. While both of these butterflies may be found within sunny openings in the forest, the most critical areas are those with their larval host plants - Beech trees for the Early Hairstreak and Toothwort and other mustard family plants for the Eastern Veined White. The part of this Core Habitat in southeastern Pittsfield is located less than 10 km from other habitat for the Eastern Veined White in northeastern Pittsfield and Washington, which probably allows for dispersal of individual butterflies between all of these areas.

Vertebrates

Significant habitat for Wood Turtles is present along the Housatonic River, Sackett Brook, and in Pleasant Valley where mosaics of riparian habitats include miles of meandering river and streams, old river oxbows, wet meadows, shrub and wooded swamps, and adjacent upland forests and fields. Along the Housatonic River and the lower reaches of Sackett Brook, shallow freshwater marshes and wet meadows, including beaver-impounded wetlands and old oxbows, provide habitat for the American Bittern, a rare marsh bird. Riverine marshes that have a good interspersion of cattails, aquatic bed vegetation, and open water provide habitat for American and Least Bitterns, Common Moorhens, and other marsh birds. Also in this Core Habitat, mixed upland forests with clusters of vernal pools support populations of Jefferson and Marbled Salamanders, while forested and shrub wetlands and seeps with abundant sphagnum moss provide significant habitat for Four-toed Salamanders. In portions of the Core Habitat that are at higher elevations, the cold, high-gradient brooks and seeps provide habitat for Spring Salamanders.

Land protection within this Core Habitat should focus on protecting large areas of connected riparian habitat, especially between Yokun Brook and the Housatonic River, and expanding areas of existing conservation land. Wood Turtles will benefit from the protection of undeveloped riparian corridors that extend out at least 600 yards along both sides of the Housatonic River and its tributaries. Another conservation priority should be areas of mature deciduous or mixed forest with clusters of vernal pools that provide breeding habitat for Jefferson or Marbled Salamanders. Mature, rich mesic or floodplain forests at lower elevations are especially important habitat for a variety of songbirds, including Wood Thrush.

Living Waters: Species and Habitats

Dalton

Core Habitat LW003

Exemplary Habitats

Common Name	Scientific Name	Status
Invertebrate Habitat		----------

Core Habitat LW298

Plants

Common Name	Scientific Name	Status
Comb Water-Milfoil	*Myriophyllum verticillatum*	Endangered
Flat Water-meal	*Wolffia borealis*	Watch Listed
Straight-leaf Pondweed	*Potamogeton strictifolius*	Endangered
Water Star-grass	*Heteranthera dubia*	Watch Listed

Invertebrates

Common Name	Scientific Name	Status
Appalachian Brook Crayfish	*Cambarus bartonii*	Special Concern

Fishes

Common Name	Scientific Name	Status
Bridle Shiner	*Notropis bifrenatus*	Special Concern
Longnose Sucker	*Catostomus catostomus*	Special Concern

Living Waters: Core Habitat Summaries

Dalton

Core Habitat LW003

This tributary to Wahconnah Falls Brook flows out of the Egypt Reservoir through protected open space, under Holiday Road, and then to Wahconnah Falls Brook. The tributary supports a healthy community of the more ecologically sensitive aquatic insects: mayflies, stoneflies, and caddisflies. The presence of this invertebrate community indicates the stream habitats here are relatively free of the impacts of development. The streambed is a mix of boulders, cobbles, pebbles, gravels, and sands that provide excellent habitat for these aquatic invertebrates. Forested stream banks help maintain the high-quality habitat by shading the water to keep it cool, by providing a natural energy source to the stream ecosystem in the form of leaves and sticks, and by controlling the runoff of sediments, excess nutrients, and water. Well-used bike and bridle trails adjacent to the Core Habitat may be increasing sediment runoff.

Core Habitat LW298

This Core Habitat encompasses a range of standing water and flowing water habitats that support rare fishes, invertebrates, and plants.

The running waters of Kitchen Brook, South Brook, Macdonald Brook, and the upper reaches of the Hoosic River support the Longnose Sucker, a fish Species of Special Concern. This species is restricted to the western watersheds of Massachusetts, where it is found in cold, clean, oxygen-rich streams with gravel bottoms. The Longnose Sucker sometimes migrates many miles to reach its spawning grounds. The eggs are released over the gravel bottom, making them susceptible to excess sedimentation, flow alterations, and increases in water temperature. These habitat degradations can be particularly detrimental to the reproductive success of this slow-growing fish that does not reach maturity until 5 to 7 years of age.

Kitchen Brook is also habitat for the Appalachian Brook Crayfish, a Species of Special Concern. This secretive crayfish is restricted to the Hoosic River Watershed in Massachusetts, where it tunnels under large rocks and boulders in hillstreams. Potential threats to the Appalachian Brook Crayfish include competition from introduced, non-native crayfish species as well as habitat degradation from damming or development in the adjacent riparian areas.

In the well-vegetated, quieter waters of the Cheshire Reservoir and Berkshire Pond, this Core Habitat supports the rare Bridle Shiner. This fish Species of Special Concern has a small range from southern New England to South Carolina, and has been declining or extirpated in much of the region. It feeds on small aquatic insects and other invertebrates, and is an important part of the freshwater ecosystem as prey for larger fishes.

Cheshire Reservoir and Berkshire Pond also create an important aquatic complex that supports four rare or uncommon aquatic plant species. Native freshwater plants are an important component of aquatic ecosystems, providing habitat and nutrition for fishes and invertebrates, and adding oxygen to the water through photosynthesis.

Help Save Endangered Wildlife!

Please contribute on your Massachusetts income tax form or directly to the

Natural Heritage &
Endangered Species Fund

To learn more about the Natural Heritage & Endangered Species Program and the Commonwealth's rare species, visit our web site at: www.nhesp.org.